



LAMPREY TECHNICAL REVIEW COMMITTEE

NH Instream Flow Pilot Program
New Hampshire Department of Environmental Services
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Lamprey TRC Meeting Minutes
Thursday, October 23, 2008
9:00 pm – 12:00 pm
Society for the Protection of NH Forests
54 Portsmouth St.
Concord, NH

Members Present:

Ralph Abele
Robert Flynn
Coleen Fuerst-Dreher
Brian Gallagher
James Hewitt
Ken Kimball (phone)
Vernon Lang
John Magee
Carl Paulsen

Representing

US EPA
USGS
Durham Boat Company
Business Interests, NH Water Works Association
Wright-Pierce Engineers
AMC
US Fish and Wildlife Service
NH Fish & Game
NH Rivers Council

Others Present

Affiliation

| | |
|-----------------------|-----------------------------|
| Tom Ballestero | UNH |
| Lee Carbonneau | Normandeau Associates |
| David Cedarholm | WMPAC, Town of Durham |
| David Deen | Ct. River Watershed Council |
| Tom Fargo | Lamprey WMPAC |
| Brian Giles | LRAC |
| Mike Kappler | NH legislature (SB330) |
| Ray Koniski | TNC |
| Al Larson | Normandeau Associates |
| Eileen (Kitty) Miller | LRAC |
| Piotr Parasiewicz | NEIHP – UMASS |

DES Staff Present:

Wayne Ives, Instream Flow Specialist, Watershed Management Bureau
Kathie Fife, Instream Flow Environmentalist, Watershed Management Bureau
Steve Couture, Rivers Coordinator, Watershed Management Bureau
Lisa A. Fortier, Executive Secretary, Watershed Management Bureau
Brandon Kernan, Hydrogeologist, Drinking Water and Groundwater Bureau

9:00 – 9:15 Approve Minutes of April 26, 2007 and June 9, 2008 meetings

- **John Magee** brought forward a motion to accept the April 26, 2008 minutes. **Vern Lang** seconded the motion all voted to approve.
- **Vern Lang** brought forward a motion to approve the June 9, 2008 minutes, **Brian Gallagher** seconded the motion. All voted to approve.

Wayne Ives introduced **Kathy Fife**, the new Instream Coordinator.

9:15 – 9:30 General Program Update (3rd Party Review, Stream Gages, Assessment Methods)

We installed seven gages this past year, which put us into the 1940's level instead of the 1960's and we are hoping for additional funding to reach the 1970's gage level. We will have better data on designated rivers and sewer treatment plants. We need more gages on small watersheds. DES visited Hubbard Brook for examples of how to develop stream gages from small watersheds. Small gages need to be located around the state because of unique conditions. We are looking to have more gages with different uses and including tiny watersheds. There will be no minimum or maximum number of gages, but we would like to cover all the designated rivers and then specific type conditions after that.

James Hewitt – Are there any on the upper Lamprey River?

Wayne Ives – There are two new gages on the Pilot Rivers: one the Souhegan River and one on the Lamprey near Raymond. So we have two on the Souhegan River and two on the Lamprey River. The others are on Cockermouth, Isinglass, Suncook, Piscataquog, and Exeter Rivers

James Hewitt – Our group is interested in putting in a third gage on the Lamprey.

Wayne Ives – We are seeing cooperation with towns and businesses that have a need to know how much stream flow there is. Hard line gages are better than satellites because satellites don't work well during storms. They work well when you don't need it, during nice weather. 15-minute data is valuable. USGS is making what was once archived data more accessible and it dovetails with what instream flow will need in the future.

A third-party review is planned to review the Lamprey and Souhegan PISF methods and results. The Instream Flow Council, made up of Fish & Game representatives in the US and Canada, will be coordinating the review. I am developing a structured process for the review.

We are working on assessment methods and then we will put it on a public forum. We will do a quick assessment using Fish & Wildlife's NE base flow. Then the next step is standard setting technology. We will put the information on paper then present it to the WQSAC.

The legislature extended the date for an additional two years until April or October 2009 with a final date of April 2010.

9:30 – 9:45 Proposed locations for the public hearing in Durham or Lee

Wayne Ives - We need input on where to hold public hearing. Some of the suggestions included the Fish & Game Office in Durham, the Raymond High cafeteria or UNH. Fish &

Game may not be the best choice but there are rooms available a few days in early December. UNH is ok but the parking is impossible, except for Cole Hall. Early January is best at UNH because most of the students are gone. The meeting has to be in Lee or Durham and it will be an evening meeting in the middle of the week. The Draft Proposed Instream Flow must be reviewed for 30 days before a public hearing can be held. There will be another 30 day review after public hearing.

9:45 – 11:30 Overview of the draft final Proposed Lamprey PISF report and TRC review comments

The PowerPoint presentation today is based on the June 9th meeting.

Wayne Ives discussed the Natural Flow Paradigm and the ultimate goal of the Water Management Plan.

The contractors described their portions of the results of the study. [See the PowerPoint presentation.]

Brian Giles – Were measurements on impervious surface integrated into the study?

Tom Ballestero – These features don't act within the timescale (day) being used in the Lamprey PISF. They are shorter than the PISF durations.

John Magee – People tend to not do maintenance on stormwater detention ponds.

Tom Ballestero – Some swales get overgrown and even impervious surfaces will become overgrown in time. You need stream gages on first order streams especially when you have a subdivision nearby.

John Magee – You could try to reconstruct for pre-human withdrawals.

Tom Ballestero – That is what we did.

Lee Carbonneau – Some changes were made to the state protection status of wildlife species in our study area. Pied billed grebe and bald eagle were down-listed to threatened from endangered; osprey have dropped off the threatened list and Blanding's turtles are now endangered.

John Magee – Bridle shiners are now considered threatened.

Coleen Dreher – There is a great difference in flows around Lee Hook Rapids.

Vern Lang – What about Blanding's turtles? The report says flow shouldn't be too high for them. How does this comply with the Natural Flow Paradigm?

Wayne Ives – That is an issue we have to discuss. We don't want to cause flooding that doesn't normally happen. Management activities shouldn't create floods.

Ken Kimball – I went back through the Executive Summary and found the common, critical, and rare flow descriptions in the Executive Summary are very confusing.

Wayne Ives – Trying to describe a river's flow is complicated. Flexibility to provide off stream use requires complexity.

Brian Giles – You can try to control flashy flows by managing impervious surfaces.

Piotr Parasiewicz – Normal flows, due to climate change, are not natural anymore.

Vern Lang – I agree with the comment about climate change. In the 1970's flood control projects were built and they were supposed to protect wildlife, but caused harm.

Wayne Ives – We do not want to create a Disneyland for trout.

Steve Couture – The PISF sets the thresholds, both high and low needs.

Wayne Ives – But we are not managing the naturally-occurring high flows.

John Magee – The Piscataquog and the Contoocook could throw down enormous amounts of water downstream from AOCE projects. The Connecticut River is another.

Carl Paulsen – It is similar with high end as well as low end with critical flows.

Ken Kimball – I still find the common, critical and rare flows difficult to understand. Is it relevant to just that section? Are you using the terms just for the fish?

Wayne Ives – Yes. The common, critical and rare flows and their durations apply only to fish. The riparian vegetation and wildlife are also described protected flows with magnitude, timing, duration and frequency, but in a different format. They are longer term flow requirements, frequently high flow needs.

Ken Kimball – It is hard to figure out the PISF that was being recommended. I found I was just jumping around from table to table. If I was a water user I would want to know if I was getting into trouble or getting out of trouble with the water flows.

Wayne Ives – Fish flows are key component to water availability on a day to day basis. The longer term requirements for riparian vegetation and wildlife are tracked for several bioperiods or years before management action.

Ken Kimball – What are these levels and when will they kick out? The science should be clearer.

Carl Paulsen – Specific ideas would be useful.

Ray Konisky - The difference between Souhegan and Lamprey Report was a graph that people found confusing.

[The graph showed the common, rare, and critical flow magnitudes, but not the durations under which they apply.]

Piotr Parasiewicz - There is a lot of habitat for red-breast sunfish and that is more habitat than we should have for this river. Good flow isn't necessarily good habitat. You can reconstruct flows and habitat structure but you must consider maturation of the river. The major assumption is that flora evolved to conditions. Looking on the graph, the first inflection points tell us when we have a change of durations.

Carl Paulsen – You should look at the biology and methodology and then make full text understandable.

We will revise the text to clarify the application of the protected flows and also to clarify that the high flows described as protected flow limits are not intending to be used to manage naturally occurring flows, they are to provide guidance for management so we avoid creating those flows artificially when managing flow.

11:30 – 12:00 Schedule to complete the review and planning for the PISF public hearing

We have the choice of completing the review of the report through e-mail. Is the report ready to go with minor changes such as making the recommended flows in ex summary more direct? Meeting space is at premium so it will be difficult to schedule another meeting. Tuesday, Nov 4th is available. We can either make a decision to have another meeting or address the flaws during public comment period.

Steve Couture – I think we need to have the public meeting in January to meet 2009 deadline and we need the TRC to meet in two or three weeks. Nov 6th is available at Fish & Game.

Carl Paulsen – What are bad dates for people?

Ralph Abele – The 3rd not good for me.

Wayne Ives – We need comments by next week.

Dave Cedarholm – What is the confidence in results? Multiple analytical processes were used. What are the error rates in the estimated hard numbers for instream flows? Without discussion, that may undermine confidence of public officials in the Report.

Carl Paulsen – That is a good question and we can go over that in the next meeting.

Piotr Parasiewicz – We did validation models and we did one for the Souhegan River also. It is hard to say what the sensitivity is a long-term study.

Dave Cedarholm – I am concerned about simulating flows without impoundments in place.

Carl Paulsen – The modeling is being based on the dam removals.

12:25

Adjourn meeting

- **Brian Gallagher** brought forward a motion to adjourn and **Ralph Abele** seconded it.